

FUSIBLE WIRE WOUND RESISTORS, OVER CURRENT PROTECTION

過電流保護型保險絲繞線電阻器



Features

- 1. Fusing current and fusing time can be consulted between buyers and the manufacturer before producing.
- 2. Noncombustible insulating coating; “Solvent” proof and resistant to high temperature.
- 3. Uniform in fusing time.
- 4. Excellent anti-surge characteristics according to IEC 61000-4-5.
- 5. Suitable for the application to half short-circuit of a charger.

特色

- 1. 熔斷電流及熔斷時間，可經由供需雙方商議制定。
- 2. 不燃性絕緣塗裝，可耐溶劑清洗及高溫。
- 3. 保險絲熔斷時間一致。
- 4. 依據IEC 61000-4-5測試方法，耐雷擊能力強。
- 5. 適合各大廠牌手機充電器半短路迴路使用。

ELECTRICAL AND MECHANICAL PERFORMANCE

電氣及機械特性

特性 Characteristics	規格值 Standards	試驗方法 Test Methods
阻值容許誤差 Resistance Tolerance	±5% (J)	-
溫度係數 Resistance Temp. Coeff.	<4500 ppm / °C	-55°C ~ 200°C
額定負載 Power Rating Load	Surface temp. 275°C Max. 最高表面溫度 275°C, ΔR/R ≤ ±2%	Rated voltage for 30 minutes 額定電壓 / 30分鐘
短時間過負載 Short Time Overload	±2%	10 times of rated wattage for 5 seconds. 10 倍額定功率 / 5秒
耐電壓 Dielectric Withstanding Voltage	No evidence of mechanical damage or insulation breakdown. 無機械性能損壞及絕緣擊穿現象	AC 350V for 1 minutes 施加 AC 350V 電壓 1 分鐘
絕緣電阻 Insulation Resistance	1,000MΩ	DC 100V megger
熔斷特性 Fusing Characteristics	Fusing time is within 60 seconds. 熔斷時間 < 60秒.	25 times of rated wattage
焊錫性 Solder-ability	Minimum 95% coverage 焊錫面積 ≥ 95%	235±5°C for 2 seconds
浸錫耐熱性 Resistance to Soldering Heat	No evidence of mechanical damage. 無機械性能損壞現象, ΔR/R ≤ ±1%	270±5°C for 10 ±1 seconds 350±10°C for 3.5 ±0.5 seconds

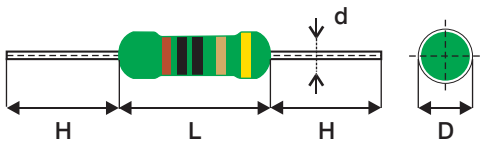
ENVIRONMENTAL CHARACTERISTICS

耐環境特性

特性 Characteristics	規格值 Standards	試驗方法 Test Methods
溫度週率 Temp. Cycle	ΔR/R ≤ ±1%	-55°C (30 min.) → Room Temp. (3 min.) → +200°C (30 min.) → Room Temp. (3 min.) / (5 cycles)
負載壽命 Load Life	ΔR/R ≤ ±5%	Rated power load 90 minutes ON 30 minutes OFF 70°C 1000 hours
耐濕壽命 Moisture-proof Load Life	ΔR/R ≤ ±5%	Rated power load 90 minutes ON 30 minutes OFF 40°C 95% RH 1000 hours
不燃性 Nonflammability	not flamed	16 times of rated wattage for 5 min.

Dimensions

尺寸



Unit : mm

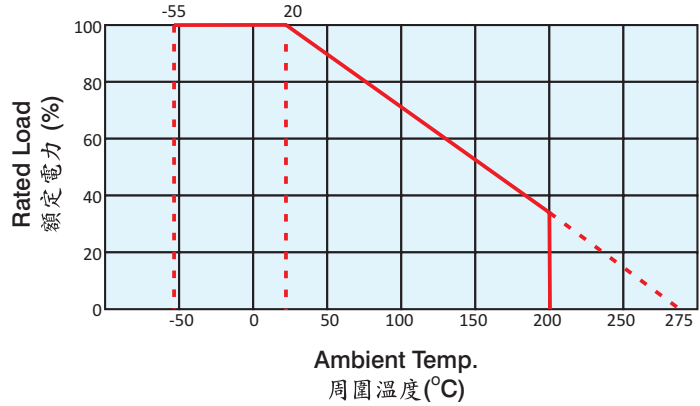
Rated Wattage	D	L ± 1	H ± 3	d ± 0.1	Resistance Range (Ω)
1W	3.5 Max.	9	28	0.65	1~20

Note: Too low or too high ohmic values can be supplied only case by case.

Derating Curve

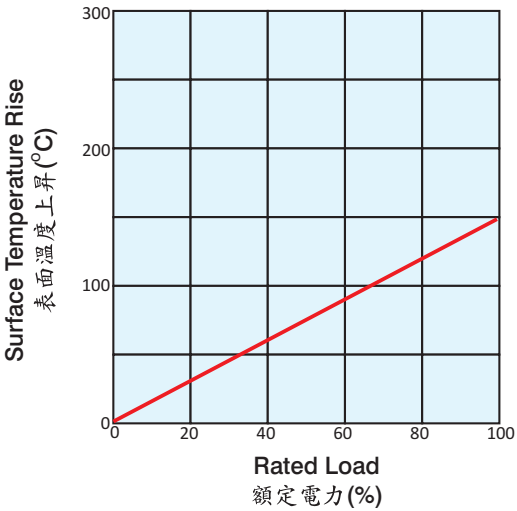
電力輕減曲線

For resistors operated in ambient temperatures above 20°C, power rating must be derated in accordance with the curve below.



Surface Temperature Rise

表面溫度上昇曲線



How to order

訂貨方式

It is composed by Type, Rated Wattage, Nominal Resistance, Tolerance, Over Current Protection and Package. e.g.

FKN 1W 10R J H3 T/B
a. b. c. d. e. f.

- a. : Type(種類): Fusible Wire Wound Resistors, Flameproof are called "FKN".
- b. : Rated Wattage(額定電力) : Shown by "W" such as "1W".
- c. : Nominal Resistance(公稱電阻值) : 10Ω.
- d. : Tolerance(容許誤差): J = ±5% .
- e. : H3 : Letter "H3" indicates over current protection. ("H3"表示過電流保護).
- f. : Package (包裝方式):
T/R=tape & reel (捲裝); T/B=tape in box(帶裝); Nil= Bulk(散裝).

FUSIBLE RESISTORS, FLAMEPROOF

保險絲電阻器



Features

- 1. It is suitable for protecting circuit boards.
- 2. Noncombustible insulating coating; “Solvent” Proof and resistant to high temperature.
- 3. Low temperature coefficient (< ±200ppm/°C).
- 4. Uniform in fusing time.

特色

- 1. 適用於需要保護的各種電路基板及設計。
- 2. 不燃性絕緣塗裝，可耐溶劑清洗及高溫。
- 3. 溫度係數低(< ±200ppm/°C)。
- 4. 保險絲熔斷時間一致。

ELECTRICAL AND MECHANICAL PERFORMANCE

電氣及機械特性

特性 Characteristics	規格值 Standards	試驗方法 Test Methods
阻值容許誤差 Resistance Tolerance	±5% (J) or ±1% (F)	-
溫度係數 Resistance Temp. Coeff.	±200 ppm / °C	-55°C ~ 155°C
額定負載 Power Rating Load	Surface temp. 155°C Max. 最高表面溫度 155°C, ΔR/R ≤ ±2%	Rated voltage for 30 minutes 額定電壓 / 30分鐘
短時間過負載 Short Time Overload	±2%	4 times of rated wattage for 5 seconds 4 倍額定功率 / 5 秒
耐電壓 Dielectric Withstanding Voltage	No evidence of mechanical damage or insulation breakdown. 無機械性能損壞及絕緣擊穿現象	Applying suitable voltage listed on Dimensions for one minute. 施加規定電壓 1 分鐘
絕緣電阻 Insulation Resistance	1,000MΩ	DC100V megger
熔斷特性 Fusing Characteristics	Fusing time is within 60 seconds. 熔斷時間 < 60秒.	0.22Ω ~ 1Ω: Rated Wattage x 32 1.1Ω ~ 2Ω: Rated Wattage x 25 2.1Ω ~ 10Ω: Rated Wattage x 16 10.1Ω ~ 10KΩ: Rated Wattage x 12
焊錫性 Solder-ability	Minimum 95% coverage 焊錫面積 ≥ 95%	235±5°C for 2 seconds
浸錫耐熱性 Resistance to Soldering Heat	No evidence of mechanical damage. 無機械性能損壞現象, ΔR/R ≤ ±1%	270±5°C for 10 ±1 seconds 350±10°C for 3.5 ±0.5 seconds

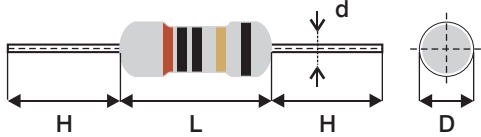
ENVIRONMENTAL CHARACTERISTICS

耐環境特性

特性 Characteristics	規格值 Standards	試驗方法 Test Methods
溫度週率 Temp. Cycle	ΔR/R ≤ ±1%	-55°C (30 min.) → Room Temp. (3 min.) → +155°C (30 min.) → Room Temp. (3 min.) / (5 cycles)
負載壽命 Load Life	ΔR/R ≤ ±5%	Rated power load 90 minutes ON 30 minutes OFF 70°C 1000 hours
耐濕壽命 Moisture-proof Load Life	ΔR/R ≤ ±5%	Rated power load 90 minutes ON 30 minutes OFF 40°C 95% RH 1000 hours
不燃性 Nonflammability	not flamed	16 times of rated wattage for 5 min.

Dimensions

尺寸



Unit : mm

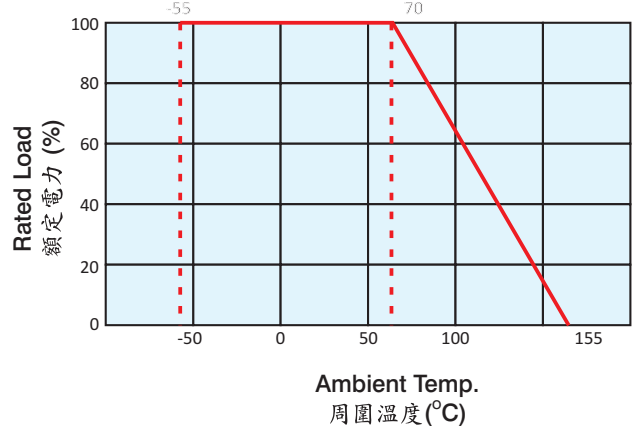
Rated Wattage	D±1	L±1	H±3	d±0.1	Resistance Range(Ω)	Max. Working Voltage	Dielectric Withstanding Voltage
1/4W	2.6±0.5	6.8	28	0.6	0.22~10K	250V	250V
1/2W	3.5	9	28	0.65	0.22~10K	300V	350V
1W	4.5	11	28	0.8	0.22~10K	350V	350V
2W	5.0	15	28	0.8	0.22~10K	500V	350V

Note: 1. Fusing time can also be consulted between buyers and the manufacturer before producing.
2. The resistance value will be as high as 100 times the original value after fusing.
Rate Continuous Working Voltage (RCWV) shall be determined
√ Rated Power X Resistance Value or Max. Working Voltage listed above,
whichever less.

Derating Curve

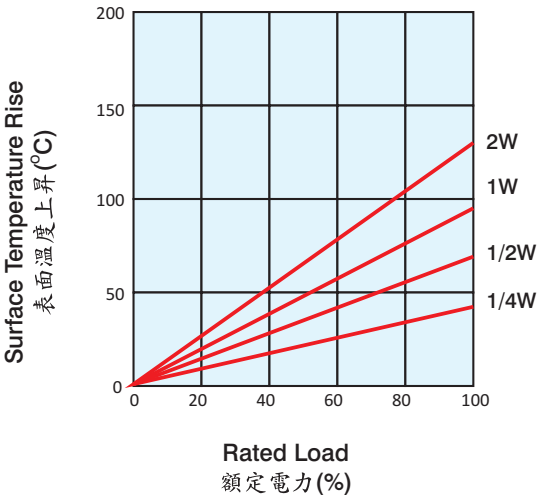
電力輕減曲線

For resistors operated in ambient temperatures above 70°C,
power rating must be derated in accordance with the curve
below.



Surface Temperature Rise

表面溫度上昇曲線



How to order

訂貨方式

It is composed by Type, Rated Wattage, Nominal Resistance, Tolerance and Package. e.g.

FRL 1W 10R J T/B
a. b. c. d. e.

- a. : Type(種類) : Fusible Resistors, Flameproof are called "FRL".
- b. : Rated Wattage(額定電力) : Shown by "W",such as 1/4W, 1/2W, 1W, 2W.
- c. : Nominal Resistance(公稱電阻值) : 10Ω.
- d. : Tolerance(容許誤差): F = ±1% , J = ±5% .
- e. : Package (包裝方式):
T/R=tape & reel (捲裝); T/B=tape in box(帶裝); Nil= Bulk(散裝).



FUSIBLE RESISTORS, FLAMEPROOF (SMALL TYPE)

保險絲電阻器(小型化)



Features

- 1. High power, Small body size.
- 2. It is suitable for protecting circuit boards.
- 3. Noncombustible insulating coating, “Solvent” Proof and resistant to high temperature.
- 4. Low temperature coefficient ($< \pm 200\text{ppm}/^{\circ}\text{C}$).
- 5. Uniform in fusing time.

特色

- 1. 功率大、體積小。
- 2. 適用於需要保護的各種電路基板及設計。
- 3. 不燃性絕緣塗裝，可耐溶劑清洗及高溫。
- 4. 溫度係數低 ($< \pm 200\text{ppm}/^{\circ}\text{C}$)。
- 5. 保險絲熔斷時間一致。

ELECTRICAL AND MECHANICAL PERFORMANCE

電氣及機械特性

特性 Characteristics	規格值 Standards	試驗方法 Test Methods
阻值容許誤差 Resistance Tolerance	$\pm 5\%$ (J) or $\pm 1\%$ (F)	-
溫度係數 Resistance Temp. Coeff.	$\pm 200\text{ppm}/^{\circ}\text{C}$	$-55^{\circ}\text{C} \sim 155^{\circ}\text{C}$
額定負載 Power Rating Load	Surface temp. 200°C Max. 最高表面溫度 200°C , $\Delta R/R \leq \pm 2\%$	Rated voltage for 30 minutes 額定電壓 / 30分鐘
短時間過負載 Short Time Overload	$\pm 2\%$	4 times of rated wattage for 5 seconds. 4 倍額定功率 / 5 秒
耐電壓 Dielectric Withstanding Voltage	No evidence of mechanical damage or insulation breakdown. 無機械性能損壞及絕緣擊穿現象	Applying suitable voltage listed on Dimensions for one minute. 施加規定電壓 1 分鐘
絕緣電阻 Insulation Resistance	$1,000\text{M}\Omega$	DC100V megger
熔斷特性 Fusing Characteristics	Fusing time is within 60 seconds. 熔斷時間 < 60 秒.	16 times of rated wattage
焊錫性 Solder-ability	Minimum 95% coverage 焊錫面積 $\geq 95\%$	$235 \pm 5^{\circ}\text{C}$ for 2 seconds
浸錫耐熱性 Resistance to Soldering Heat	No evidence of mechanical damage. 無機械性能損壞現象, $\Delta R/R \leq \pm 1\%$	$270 \pm 5^{\circ}\text{C}$ for 10 ± 1 seconds $350 \pm 10^{\circ}\text{C}$ for 3.5 ± 0.5 seconds

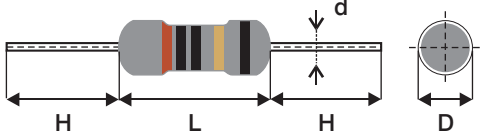
ENVIRONMENTAL CHARACTERISTICS

耐環境特性

特性 Characteristics	規格值 Standards	試驗方法 Test Methods
溫度週率 Temp. Cycle	$\Delta R/R \leq \pm 1\%$	-55°C (30 min.) $\rightarrow$ Room Temp.(3 min.) $\rightarrow +155^{\circ}\text{C}$ (30 min.) $\rightarrow$ Room Temp.(3 min.) / (5 cycles)
負載壽命 Load Life	$\Delta R/R \leq \pm 5\%$	Rated power load 90 minutes ON 30 minutes OFF 70°C 1000 hours
耐濕壽命 Moisture-proof Load Life	$\Delta R/R \leq \pm 5\%$	Rated power load 90 minutes ON 30 minutes OFF 40°C 95% RH 1000 hours
不燃性 Nonflammability	not flamed	16 times of rated wattage for 5 min.

Dimensions

尺寸



Unit : mm

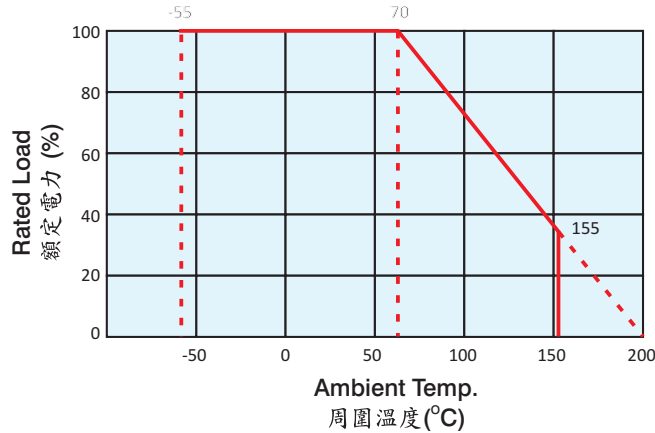
Rated Wattage	D ± 1	L ± 1	H ± 3	d ± 0.1	Resistance Range(Ω)	Max. Working Voltage	Dielectric Withstanding Voltage
1/2W	2.6 ± 0.5	6.8	28	0.6	0.22~100K	250V	250V
3/4W	3.0	9	28	0.65	0.22~100K	300V	300V
1W	3.5	9	28	0.65	0.22~100K	300V	350V
2W	4.5	11	28	0.8	0.22~100K	350V	350V
3W	5.0	15	28	0.8	0.22~100K	500V	350V

Note: 1. Fusing time can also be consulted between buyers and the manufacturer before producing.
2. The resistance value will be as high as 100 times the original value after fusing.
Rate Continuous Working Voltage (RCWV) shall be determined $\sqrt{\text{Rated Power} \times \text{Resistance Value}}$ or Max. Working Voltage listed above, whichever less.

Derating Curve

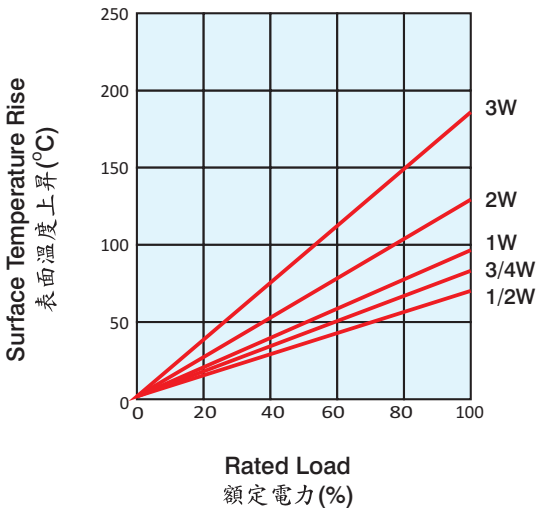
電力輕減曲線

For resistors operated in ambient temperatures above 70°C , power rating must be derated in accordance with the curve below.



Surface Temperature Rise

表面溫度上昇曲線



How to order

訂貨方式

It is composed by Type, Rated Wattage, Nominal Resistance, Tolerance and Package. e.g.

FRN 1W 10R J T/B
a. b. c. d. e.

- a. : Type(種類) : Fusible Resistors, Flameproof (Small Type) are called "FRN".
- b. : Rated Wattage(額定電力) : Shown by "W", such as 1/2W, 3/4W, 1W, 2W, 3W.
- c. : Nominal Resistance(公稱電阻值) : 10 Ω .
- d. : Tolerance(容許誤差): F = $\pm 1\%$, J = $\pm 5\%$.
- e. : Package (包裝方式):

T/R=tape & reel (捲裝); T/B=tape in box(帶裝); Nil= Bulk(散裝).

THERMAL FUSE CEMENT RESISTORS

溫度保險絲水泥電阻器

Features

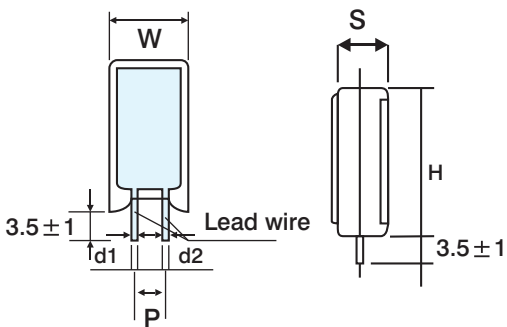
- 1. It is suitable for protecting circuit boards.
- 2. Flameproof construction in a ceramic case, resistant to humidity and insulation.
- 3. In high resistance value, the winding cores will be replaced by power film cores.
- 4. Excellent anti-surge characteristics and accurate fusibility.

特色

- 1. 適用於需要保護的各種電路基板及設計。
- 2. 不燃性瓷殼結構，具高耐濕及絕緣特性。
- 3. 高電阻值採用金屬氧化皮膜體代替繞線方式。
- 4. 絕佳之耐脈衝特性及精確之熔斷效果。

Dimensions

尺寸



Rated Wattage	W±1	S±1	H±1.5	P+2/-1	d1±0.1	d2±0.1	Resistance Range (Ω)
SQF3	12	8	25	5	0.8	3A : 0.6 5A : 1.0 10A : 1.0	0.1~50K
SQF5	13	9	25	5	0.8		0.1~50K
SQF7	13	9	39	5	0.8		0.1~50K
SQF10S	16	12	35	7.5	0.8		0.1~50K
SQF10	20Max.	9	25Max.	12.5	0.8	0.8	0.1~50K

ELECTRICAL AND MECHANICAL PERFORMANCE

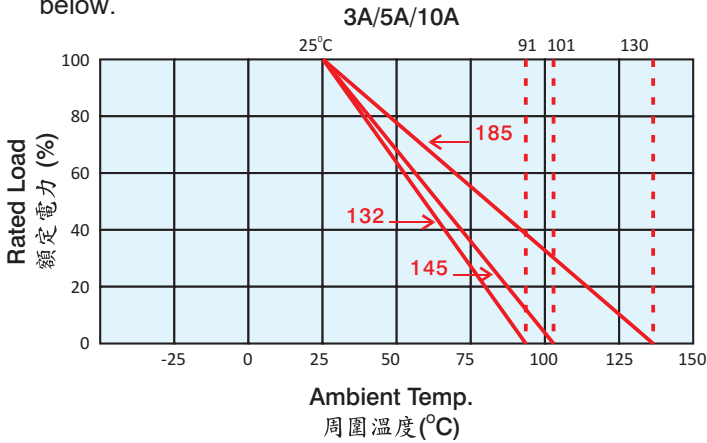
電氣及機械特性

特性 Characteristics	規格值 Standards	試驗方法 Test Methods
阻值容許誤差 Resistance Tolerance	±5% (J)	-
溫度係數 Resistance Temp. Coeff.	±300 ppm / °C ; <1Ω : ±600 ppm/°C	-
額定負載 Power Rating Load	Surface temp. 130°C Max. 最高表面溫度 130°C, ΔR/R ≤ ±2%	Rated voltage for 30 minutes 額定電壓 / 30分鐘
短時間過負載 Short Time Overload	±2%	10 times(power film : 5 times) of rated wattage for 5 seconds. 10倍額定功率(皮膜型 : 5倍額定功率)/5秒
耐電壓 Dielectric Withstanding Voltage	No evidence of mechanical damage or insulation breakdown. 無機械性能損壞及絕緣擊穿現象	AC 1000V for 1 minutes 施加 AC 1000V 電壓 1 分鐘
絕緣電阻 Insulation Resistance	1,000MΩ	DC500V megger
端子強度 Terminal Strength	No evidence of mechanical damage. 無機械性能損壞現象	4.5 kg
焊錫性 Solder-ability	Minimum 95% coverage 焊錫面積 ≥ 95%	235±5°C for 2 seconds
浸錫耐熱性 Resistance to Soldering Heat	No evidence of mechanical damage. 無機械性能損壞現象, ΔR/R ≤ ±1%	265±5°C for 10 ±1 seconds

Derating Curve

電力輕減曲線

For resistors operated in ambient temperatures above 25°C, power rating must be derated in accordance with the curve below.



Ratings

規格

Rated Current	Rated Functioning Temperature	Rated Wattage				
		SQF3	SQF5	SQF7	SQF10	SQF10S
3A	145°C	1.6W	1.6W	2.2W	3.2W	2.5W
5A	145°C	1.6W	1.6W	2.2W	3.2W	2.5W
10A	132°C	1.6W	1.6W	2.2W	3.2W	2.5W
10A	185°C	2.1W	2.1W	2.4W	4.2W	3.5W

How to order

訂貨方式

It is composed by Type, Nominal Resistance, Tolerance, Rated Functioning Temp., Rated Current and RoHS Compliant. e.g.

SQF5 10R J 145 3A N
a. b. c. d. e. f.

- a. : Type(種類) : Thermal Fuse Cement Resistors upon the rated power. are called "SQF3","SQF5","SQF7","SQF10","SQF10S".
- b. : Nominal Resistance(公稱電阻值) : 10Ω.
- c. : Tolerance(容許誤差) : J= ±5%
- d. : Rated functioning temp.(額定工作溫度) : 145°C.
- e. : Rated current(額定電流) : 3A.
- f. : RoHS compliant(符合RoHS).

ENVIRONMENTAL CHARACTERISTICS

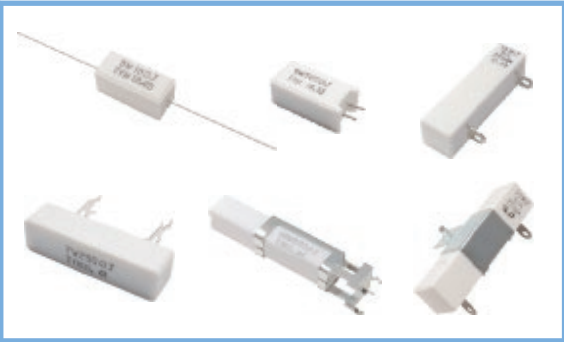
耐環境特性

特性 Characteristics	規格值 Standards	試驗方法 Test Methods
溫度週率 Temp. Cycle	△R/R ≤ ±1%	-25°C(1 hrs.) → Room Temp.(2 hrs.) → +Operating temp.(1 hrs.) → Room Temp.(2 hrs.) / (5 cycles)
負載壽命 Load Life	△R/R ≤ ±5%	Rated power load 90 minutes ON 30 minutes OFF 70°C 1000 hours
耐濕壽命 Moisture-proof Load Life	△R/R ≤ ±5%	Rated power load 90 minutes ON 30 minutes OFF 40°C 95% RH 500 hours
不燃性 Nonflammability	not flamed	16 times of rated wattage for 5 min.



CEMENT RESISTORS

水泥電阻器



Features

- 1. Small dimension, excellent stability in high temperature, resistant to humidity and shock.
- 2. Completely insulated character suitable for printed circuit board.
- 3. Super heat dissipation : small linear temperature coefficient.
- 4. Instant overload capability : low noise figures and low annual shift on resistance values.

特色

- 1. 體積小，耐震，耐溼及良好散熱，低價格。
- 2. 完全絕緣，適用於印刷電路板。
- 3. 散熱性佳，溫度係數小且呈線性變化。
- 4. 耐短時間超負載；低雜音，阻值經年無變化。

ELECTRICAL AND MECHANICAL PERFORMANCE

電氣及機械特性

特性 Characteristics	規格值 Standards	試驗方法 Test Methods
阻值容許誤差 Resistance Tolerance	±5% (J) or ±1% (F)	-
溫度係數 Resistance Temp. Coeff.	±300 ppm / °C ; < 1Ω : ±600 ppm/°C	-55°C ~ 155°C
額定負載 Power Rating Load	Surface temp. 275°C Max. 最高表面溫度 275°C, ΔR/R ≤ ±2%	Rated voltage for 30 minutes 額定電壓 / 30分鐘
短時間過負載 Short Time Overload	±2%	10 times(power film : 5 times) of rated wattage for 5 seconds. 10 倍額定功率(皮膜型:5倍額定功率) / 5秒
耐電壓 Dielectric Withstanding Voltage	No evidence of mechanical damage or insulation breakdown. 無機械性能損壞及絕緣擊穿現象	AC 1000V for 1 minutes 施加 AC 1000V 電壓 1 分鐘
絕緣電阻 Insulation Resistance	1,000MΩ	DC 500V megger
端子強度 Terminal Strength	No evidence of mechanical damage. 無機械性能損壞現象	4.5 kg
焊錫性 Solder-ability	Minimum 95% coverage 焊錫面積 ≥ 95%	235±5°C for 2 seconds
浸錫耐熱性 Resistance to Soldering Heat	No evidence of mechanical damage. 無機械性能損壞現象, ΔR/R ≤ ±1%	270±5°C for 10 ±1 seconds 350±10 °C for 3.5 ± 0.5seconds

ENVIRONMENTAL CHARACTERISTICS

耐環境特性

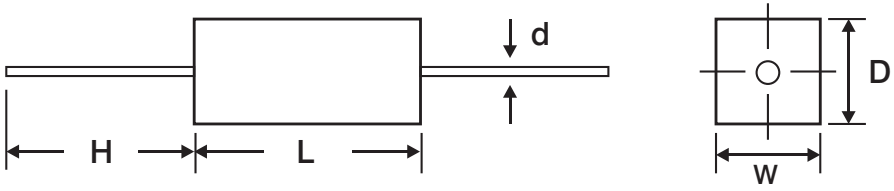
特性 Characteristics	規格值 Standards	試驗方法 Test Methods
溫度週率 Temp. Cycle	△R/R ≤ ±1%	-55°C(30 min.) → Room Temp.(3 min.) → +155°C (30 min.) → Room Temp.(3 min.) / (5 cycles)
負載壽命 Load Life	△R/R ≤ ±5%	Rated power load 90 minutes ON 30 minutes OFF 70°C 1000 hours
耐濕壽命 Moisture-proof Load Life	△R/R ≤ ±5%	Rated power load 90 minutes ON 30 minutes OFF 40°C 95% RH 1000 hours
不燃性 Nonflammability	not flamed	16 times of rated wattage for 5 min.

Dimensions

尺寸

Axial Leaded Type SQP Series

軸式導線型 SQP 系列



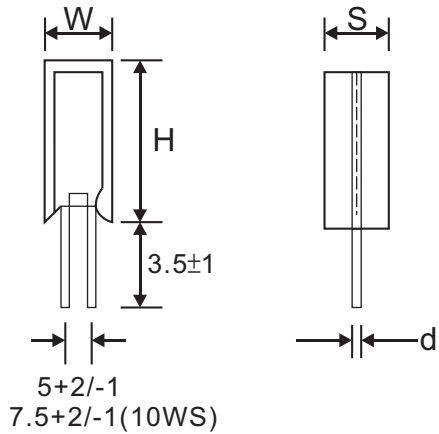
Unit : mm

Rated Wattage	W±1	D±1	L±1.5	H±3	d±0.1	Resistance(Ω)		Max.Working Voltage
						Wire Wound	Power Film	
2W	7	7	18	23	0.65	0.1~100	101~10K	150V
3W	8	8	22	35	0.8	0.1~150	151~33K	350V
5W	10	9	22	35	0.8	0.1~150	151~50K	350V
7W	10	9	35	35	0.8	0.1~430	431~50K	500V
10W	10	9	48	35	0.8	0.1~470	471~50K	750V
15W	12.5	11.5	48	35	0.8	0.5~600	601~150K	1000V
20W · 25W	14	13.5	60	35	0.8	0.5~1K	1.1K~150K	1000V

- Note:** 1. Max. Overload Voltage is 2 times of Max. Working Voltage.
2. Max. Working Voltage is applying for all SQ types.

Radial Leaded Type SQM Series

立式導線型 SQM 系列

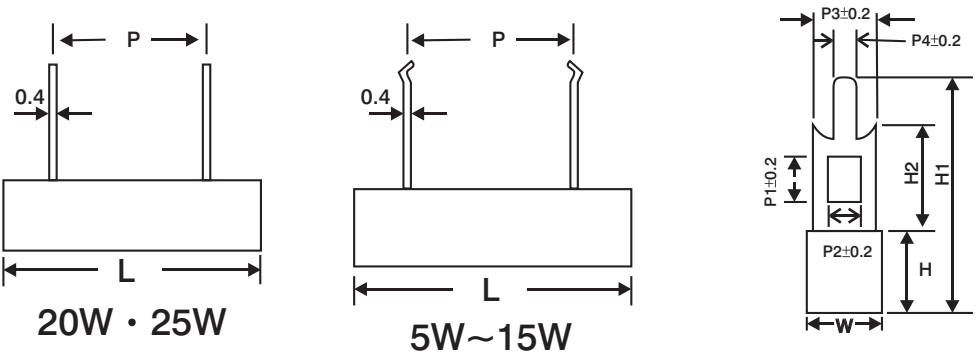


Unit : mm

Rated Wattage	H±1.5	W±1	S±1	d±0.1	Resistance(Ω)		Max.Working Voltage
					Wire Wound	Power Film	
1W	10	10	5	0.6	0.1 ~ 47	48 ~ 10K	150V
2W	20	11	7	0.65	0.1 ~ 82	83 ~ 10K	150V
3W	25	12	8	0.8	0.1 ~ 150	151 ~ 50K	350V
5W	25	13	9	0.8	0.1 ~ 150	151 ~ 50K	350V
7W	39	13	9	0.8	0.1 ~ 430	431 ~ 50K	500V
10WS	35	16	12	0.8	0.1 ~ 300	301 ~ 100K	750V
10W	52	13	9	0.8	0.1 ~ 470	471 ~ 75K	750V

Radial Terminal Type SQZ Series

(立式端子型 SQZ 系列)

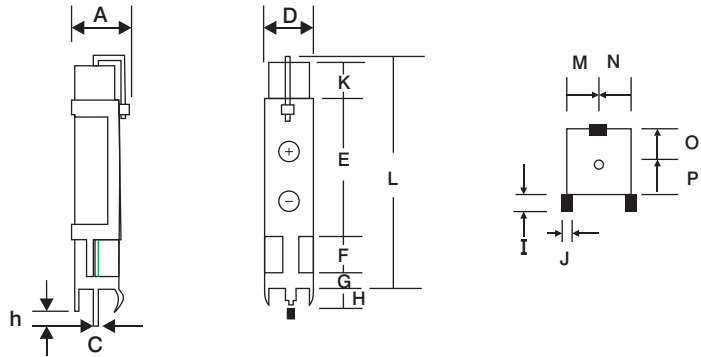


Unit : mm

Rated Wattage	L±1.5	W±1	H±1	P±1.5	P1	P2	P3	P4	H1±1	H2±1	Resistance Range(Ω)	
											Wire Wound	Power Film
5WS	25	10	10	9.5	4.2	2	5	1.5	25	10	0.1~130	131~50K
5W	28	10	10	15	4.2	2	5(5)(7.5)	1.5	25(30)(40)	10(15)(25)	0.1~130	131~50K
7W	36	10	10	20	4.2	2	5(5)(7.5)	1.5	25(30)(40)	10(15)(25)	0.1~430	431~50K
10W	48	10	9	32	4.2	2	5(5)(7.5)	1.5	25(30)(40)	10(15)(25)	0.2~470	471~50K
15W	48	12.5	12	32	4.2	2	5	1.5	27	10	1~600	601~150K
20W · 25W	60	15	13	42	7	5	10	2.7	32	15	1~1K	1.1K~150K

Radial Leded Type SPS Series

立式導線型 SPS 系列



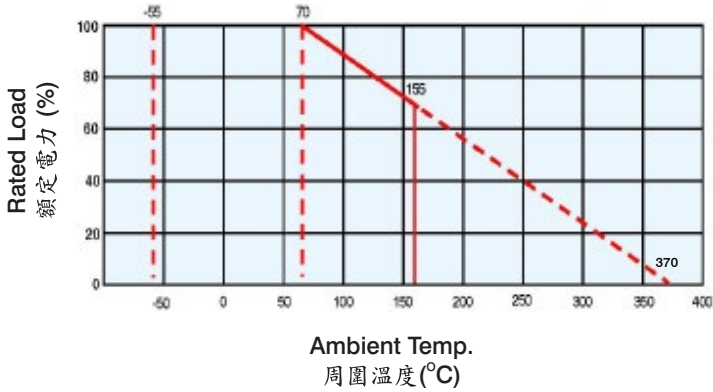
Unit : mm

Rated Wattage	A ± 1	C ± 0.1	D ± 1	E ± 0.5	F ± 0.5	G ± 0.2	H ± 0.3	I ± 0.1	J ± 0.1	K ± 1	L ± 1.5	M ± 0.5	N ± 0.5	O ± 0.5	P ± 0.5	h ± 0.5	Resistance Range(Ω)	
															Wire Wound	Power Film		
7W	12	0.8	11	28	7	3	4	1.5	0.5	7.5	46	5	5	5	5	2	0.1~430	431~50K
10W	12	0.8	11	28	7	3	4	1.5	0.5	20	60	5	5	5	5	2	0.1~470	471~50K

Derating Curve

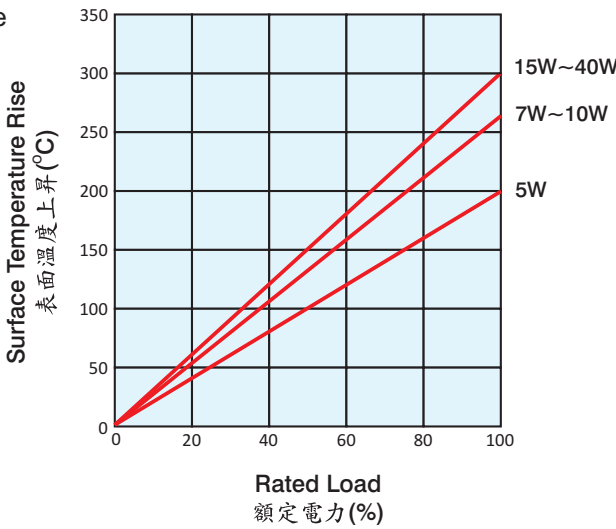
電力輕減曲線

For resistors operated in ambient temperatures above 70°C, power rating must be derated in accordance with the curve below.



Surface Temperature Rise

表面溫度上昇曲線



How to order

訂貨方式

It is composed by Type, Type Form, Rated Wattage, Nominal Resistance and Tolerance. e.g.

SQ M 5W 10R J
a. b. c. d. e.

- a. : Type(種類) : Cement Resistors are called "SQ".
- b. : Type Form(樣式) : Upon the shape of type form there are "P" form, "M" form, "Z" form, and "H" form.
- c. : Rated Wattage(額定電力) : Shown by "W", such as 1W, 2W, 3W, 5W,...40W.
- d. : Nominal Resistance(公稱電阻值) : 10Ω.
- e. : Tolerance(容許誤差): F = ± 1% , J = ± 5% .

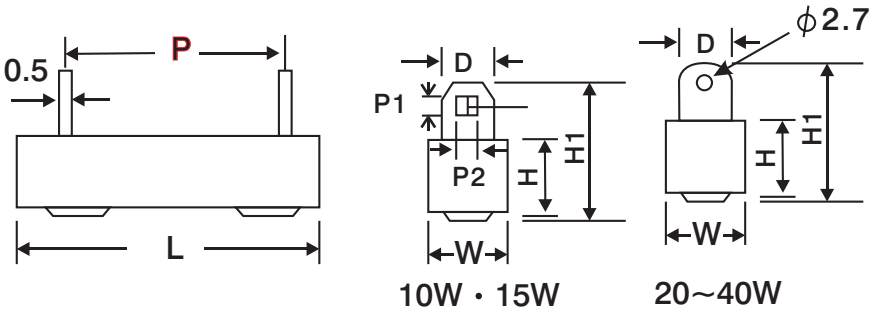
Radial Terminal Type SQH Series

(立式端子型 SQH 系列)

SQHG Series(With metal mounting bracket)

SQHG 系列 (帶安裝金屬架)

SQH type :



Unit : mm

Rated Wattage	W±1	H±1	L ±1.5	P	H1±1	D±0.5	P1±0.2	P2±0.2	A±0.5	B±0.5	C±0.5	G±0.5	Resistance Range(Ω)	
													Wire Wound	Power Film
10W	10	9	48	32±1	21	5	2.5	1.7	8	5	12	3	0.5~600	601~50K
15W	12.5	11.5	48	32±1	21	5	2.5	1.7	8	5.5	12	3	1~600	601~150K
20W	14.5	13.5	60	42±1	24	6	-	-	8	5.5	12	3	1~1K	1.1K~150K
30W	19	19	75	55±2	31	7.5	-	-	10.5	8	18	3.5	1~2K	-
40W	19	19	90	67±2	31	7.5	-	-	10.5	8	18	3.5	1~2K	-